

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Whitney Harrison

GENERAL INFORMATION:

| | |
|----------------------------|---|
| Name: | Sun Chemical Corporation, Wurtland Facility |
| Address: | 100 Wurts Road Wurtland, KY 41144 |
| Date application received: | May 13, 2003 |
| SIC/Source description: | 2865/Pigment Intermediate Manufacturers |
| AFS Plant ID / EIS #: | 21-089-00032 |
| Application log number: | 55749 & 53161 |
| Permit number: | V-99-010 (Revision 2) |

APPLICATION TYPE/PERMIT ACTIVITY:

| | |
|---|---|
| <input type="checkbox"/> Initial issuance | <input type="checkbox"/> General permit |
| <input checked="" type="checkbox"/> Permit modification | <input type="checkbox"/> Conditional major |
| __Administrative | <input checked="" type="checkbox"/> Title V |
| __Minor | <input checked="" type="checkbox"/> Synthetic minor |
| <u>X</u> Significant | <input checked="" type="checkbox"/> Operating |
| <input type="checkbox"/> Permit renewal | <input type="checkbox"/> Construction/operating |

COMPLIANCE SUMMARY:

| | |
|---|---|
| <input type="checkbox"/> Source is out of compliance | <input type="checkbox"/> Compliance schedule included |
| <input checked="" type="checkbox"/> Compliance certification signed | |

APPLICABLE REQUIREMENTS LIST:

| | | |
|--|---|---|
| <input type="checkbox"/> NSR | <input checked="" type="checkbox"/> NSPS | <input checked="" type="checkbox"/> SIP |
| <input type="checkbox"/> PSD | <input type="checkbox"/> NESHAPS | <input type="checkbox"/> Other |
| <input type="checkbox"/> Netted out of PSD/NSR | <input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b) | |

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY BASED ON PROPOSED PERMIT REVISION 1

The emissions in this table are based on a production rate permit limit included in V-99-010 (Revision 1) of 8,000 tons per year of Copper Phthalocyanine Crude Blue. The changes in emissions from the old production rate permit limit in V-99-010 of 6,600 tons per year of Copper Phthalocyanine Crude Blue are listed in parentheses.

| Pollutant | Actual (tpy) | Potential (tpy) |
|------------------------|--------------------------|--------------------------|
| PM | 37.7 (+6.3) | 51.3 (+8.6) |
| PM10 | 19.6 (+3.2) | 25.8 (+4.3) |
| SO ₂ | 19.0 (+5.3) | 19.0 (+5.3) |
| NO _x | 73.5 (+8.4) | 73.5 (+8.4) |
| CO | 24.8 (+0.3) | 24.8 (+0.3) |
| VOC | 66.7 (+11) | 90.2 (+11) |
| Ammonia | 68.6 (+12) | 5720 (+1000) |
| Dioxin | 0.00000199 (+0.00000034) | 0.00000199 (+0.00000034) |
| HAP = 10 tpy (by CAS) | | |
| 1,2,4-Trichlorobenzene | 55.5 (+9.3) | 75.2 (+9.4) |
| Naphthalene | 0.278 (+0.047) | 0.374 (+0.047) |
| PCB | 0.0133 (+0.0023) | 0.0133 (+0.0023) |
| Hydrogen Chloride | 15.3 (+2.6) | 15.3 (+2.6) |

EMISSIONS SUMMARY BASED ON PROPOSED PERMIT REVISION 2

The emissions in this table are based on a production rate permit limit included in V-99-010 (Revision 2) of 11,000 tons per year of Copper Phthalocyanine Crude Blue. The changes in emissions from the old production rate permit limit in V-99-010 of 8,000 tons per year of Copper Phthalocyanine Crude Blue are listed in parentheses.

| Pollutant | Actual (tpy) | Potential (tpy) |
|------------------------|--------------------------|--------------------------|
| PM | 38.3 (+0.6) | 60.9 (+9.6) |
| PM10 | 20.4 (+0.8) | 30.6 (+4.8) |
| SO ₂ | 13.7 (-5.3) | 13.7 (-5.3) |
| NO _x | 71.7 (-1.8) | 71.7 (-1.8) |
| CO | 27.1 (+2.3) | 27.1 (+2.3) |
| VOC | 46.4 (-20.3) | 57.2 (-30.0) |
| Ammonia | 70.4 (+1.8) | 5940 (+220) |
| Dioxin | 0.00000165 (-0.00000034) | 0.00000165 (-0.00000034) |
| HAP = 10 tpy (by CAS) | | |
| 1,2,4-Trichlorobenzene | 29.0 (-26.5) | 35.8 (-39.4) |
| Naphthalene | 0.389 (+0.111) | 1.45 (+1.076) |
| PCB | 0.0110 (-0.0023) | 0.0110 (-0.0023) |
| Hydrogen Chloride | 3.68 (-11.62) | 3.68 (-11.62) |

SOURCE PROCESS DESCRIPTION:

Sun Chemical Corporation, Wurtland Facility manufactures CPC Blue, a pigments intermediate feed stock by reacting Urea, Phthalic Anhydride and Cuprous Chloride in six batch reactors. After the reaction cycle is completed, material is decanted, washed, filter pressed and dried.

Ammonia is produced as a byproduct of the reaction. Reaction solvent is lost during the drying process. A carbon bed adsorber is used to recover solvent. Ammonia and solvent emissions are controlled by a low NOx afterburner system (Noxidizer).

EMISSION AND OPERATING CAPS DESCRIPTION:

The following is an operating limitation that has changed from the original issuance of permit number V-99-010 to V-99-010 (Revision 2). It is included under emission point (3) Production of Section B.

V-99-010

Pursuant to 401 KAR 63:021 and Agreed Order #DAQ-17972-114, production rate of Copper Phthalocyanine Crude Blue shall not exceed 6,600 tons/year for any consecutive twelve months.

V-99-010 (Revision 1)

Pursuant to 401 KAR 63:021 and Agreed Order #DAQ-17972-114, the production rate of Copper Phthalocyanine Crude Blue shall not exceed 8,000 tons/year for any consecutive twelve months.

V-99-010 (Revision 2)

Pursuant to 401 KAR 63:021 and Agreed Order #DAQ-17972-114, the production rate of Copper Phthalocyanine Crude Blue shall not exceed 11,000 tons/year for any consecutive twelve months.